

Massapequa Water District

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Commissioners
Thomas P. Hand
Joseph T. Tricarico
Raymond J. Avema

Stanley J. Carey, Superintendent
Constance A. Belegirinos, Business Manager

February 20, 2013

Ms. Judith Enck
US Environmental Protection Agency - Region 2
290 Broadway

New York, NY 10007-1866

Reference: Pending Record of Decision for Bethpage Groundwater Plume

Dear Regional Administrator Enck:

The Massapequa Water District (MWD) sincerely appreciates your efforts to protect our drinking water supply wells from the massive Grumman / Navy contamination plume that is currently impacting our sole source aquifer. Your collective action with many other county, state and federal representatives has reinforced the critical need to have the New York State Department of Environmental Conservation develop a comprehensive remediation plan which abates the movement of the contamination and prevents further contamination of public supply wells. This position is shared by the more than 200,000 residents in the region who are in the path of the plume and rely on our EPA designated Sole Source Aquifer for drinking water. The public has demanded that an effective clean-up plan be quickly implemented as evidenced by the 1000 residents who attended the DEC PRAP hearing in June of 2012, the more than 5400 petitions signed and delivered to the Governor's office in May of 2012, and the numerous civic groups who have been in contact with MWD. The residents who have attended the meetings simply seek restoration of the environment, a position that is entirely consistent with the goals of the applicable statutory programs established by our legislature in the Environmental Conservation Law.

As you may be aware, the release of the Record of Decision (ROD) has been delayed due to Hurricane Sandy. While we completely understand this delay due to the needs of the many residents who have been impacted by the storm, we feel it is equally important that the ROD not be delayed beyond the new projected date of March 31, 2013. Each day that passes without an acceptable remediation plan in place, the plume will continue to expand and impact additional public supply wells. The NYSDEC has had

*Committed to deliver and preserve our water supply for the welfare, health, and safety
of the inhabitants of the Massapequa Water District*

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the regulatory authority to remediate and contain this plume for over 30 years but has failed to do so as evidenced by the continued contamination of additional public supply wells each year. Your letters and outreach to Governor Cuomo and the NYSDEC have been instrumental in developing proposed actions that may address our concerns; however a plan and implementation schedule has not been developed at this time since the ROD has not been issued. Depending upon the information contained in the ROD, we may need your assistance to help achieve our mutual objectives to restore our sole source aquifer for future generations and to protect our existing drinking water supply wells from contamination.

Since the ROD has been delayed and there has been no plan developed to protect our supply wells, the MWD would like to reaffirm its position on this extremely important environmental issue by enclosing the joint letters previously submitted by the impacted and threatened water purveyors who supply drinking water to over 200,000 residents. To summarize, the MWD along with our neighboring water suppliers demand that the following be addressed:

- The ROD must insist on measures to remove the contamination from the sole source aquifer and not simply rely on wellhead treatment for threatened public supply wells as an acceptable remediation measure.
- Strategic plume containment must be implemented to prevent continued Sole Source Aquifer Contamination.
- Impacted water suppliers must be fully reimbursed for treatment systems to avoid districts having to bond the funds and thus charging their residents. The State has a long established "polluter pays" principle that is being disturbingly ignored in this instance.
- Additional monitoring wells must be installed to better define the hot spots and leading edge of the migrating plume.
- A Project Management System approach must be implemented with dates and milestones to avoid the past management failures of the NYSDEC.

With the anticipated release of the ROD this upcoming March, the MWD once again requests that all public officials reach out to both the Governor and NYSDEC to join us in demanding that this plume be properly contained, remediated, and that the responsible parties take full financial responsibility.

Once again thank you for your past support and we are hopeful it will continue during this process. If you have any questions or require additional information please contact me directly.

Sincerely,



Stanley Carey, Superintendent

Massapequa Water District

On behalf of the Board of Commissioners

cc:

US Senator Charles Schumer

US Congressman Peter King

USEPA George Pavlou

NYS Governor Andrew Cuomo

NYS Senator Charles Fuschillo

NYS Senator Kemp Hannon

NYS Senator Carl Marcellino

NYS Assemblyman Robert Sweeney

NYS Assemblyman Joseph Saladino

Nassau County Executive Edward Mangano

Nassau Legislator Michael Venditto

Nassau Legislator David Denenberg

NYSDEC Commissioner Joseph Martens

NYSDEC Deputy Commissioner Eugene Leff

Bethpage Water District
Massapequa Water District
New York American Water
South Farmingdale Water District

July 24, 2012

Steven M. Scharf, P.E.
NYS Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233
sxscharf@gw.dec.state.ny.us

Re: Grumman-Navy Groundwater Contamination Plume
Proposed Remedial Action Plan for OU-3 – May 2012
NYS Superfund Site No. 130003A

Dear Mr. Scharf:

As you are keenly aware the undersigned water suppliers collectively provide drinking water to over 200,000 residents in Nassau County. Our mission is to provide the residents we serve with a safe and reliable drinking water supply at the lowest possible cost.


On June 12th approximately 1,000 residents attended the public hearing in which none spoke in favor of the above referenced Proposed Remedial Action Plan (PRAP). After 25 years of mismanagement of the Grumman-Navy Plume, our perceptive residents firmly understand that the PRAP is extremely vague and lacks specific information on how our public water supply will be protected.

We have prepared individual comments related to the deficiencies of the PRAP since our circumstances and needs vary. However we are united and share the fundamental and grave concern that the PRAP is repeating the same mistakes of the past by selecting an inadequate remediation measure. The proposed Alternative 5 does not properly protect vital public water supply wells from initial or continued contamination and most definitely will not halt the continued migration of this highly contaminated plume. It is not only clear to us, but to our elected officials and residents as well, that the selected remedy is not predicated on sound science and engineering.

We urge your Department not to ignore our comments and concerns as they have been in the past. In closing a Record of Decision must present a remediation measure that requires comprehensive groundwater clean-up, necessary wellhead protection and cost recovery.

Please feel free to contact our designated representative, Stan Carey at 516-798-5266, if you should have any questions or require any additional information.

Sincerely,


Bethpage Water District
Board of Commissioners


New York American Water
President


Massapequa Water District
Board of Commissioners


South Farmingdale Water District
Board of Commissioners

Cc:

Hon. Andrew M. Cuomo
Hon. Charles E. Schumer
Hon. Peter T. King
Hon. Charles Fashilo
Hon. Kemp Hannon
Hon. Carl Marcellino
Hon. Joseph Saladino
Hon. Edward Mangano
Hon. Peter J. Schmitt
Commissioner Joseph Martens, NYSDEC
Deputy Commissioner Eugene Leff, NYSDEC
Stephen Scharf, NYSDEC
James Harrington, NYSDEC

Aqua New York
Bethpage Water District
Massapequa Water District
South Farmingdale Water District

June 23, 2011

Eugene Leff
Deputy Commissioner
Division of Remediation and Materials Management
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-0001

Re: Grumman-Navy Groundwater Contamination Plume
Bethpage Water District Plant 6 Treatment System Upgrade Response Memo

Dear Deputy Commissioner Leff:

Recently the Bethpage Water District (BPWD) shared a memo that was issued by Northrop Grumman Systems Corporation (Grumman) on May 24, 2011. A copy of the referenced document is enclosed for your review. This memo was in response to a BPWD letter that was dated October 1, 2010. The slow response is typical of the process that has been employed by your Department, Navy and Grumman. The DEC must bare some responsibility for the delayed response time by the PRP's resulting in further expansion of the toxic plume toward public supply wells. Despite the slow response, we find the statements made by Grumman to be in clear support of our position that delineation of the plume is grossly inadequate. In particular, Grumman states the following: *"It is now more than seven years since issuance of the Navy ROD, in which the Navy said it would investigate the GM-75 area, and more than five years since the Navy agreed, in the FFSRA, to perform the investigation. The Navy conducted a limited investigation downgradient of the GM-75 area in 2009, which made an inadequate attempt (only one VPB) to characterize groundwater contamination between the GM-75 area and the closest downgradient well field, BWD Plant 6."* This statement clearly exemplifies our concerns that efforts related to the plume have been extremely slow and inadequate.

The BPWD Plant 6 issue is just a microcosm of the overall characterization of the entire groundwater plume. Current water quality data supports Grumman's assertions and our statements that the groundwater investigation to date has been deficient. However, Grumman is as culpable as the Navy in perpetuating this deficiency through the creation and defense of its own inadequate groundwater model. Now, the BPWD is required to invest a significant amount of public funds to upgrade the wellhead treatment systems for Plant 6.

We are disturbed that your Department has failed to recognize the plume delineation deficiencies that we have consistently pointed out and that has now been finally recognized by Grumman. At this time, we request that your Department provide the

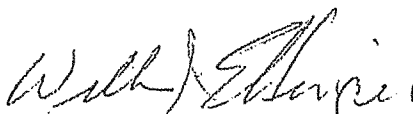
leadership that is necessary to expedite proper delineation and use of sound science to facilitate hydraulic containment of the plume and clean-up hot spots that are up gradient of impacted wells. It is our understanding that the Navy will be implementing a containment system to address to Calverton plume to stem the flow of contaminants from the former Suffolk County Grumman site. This is encouraging and hydraulic containment must be used in Nassau County since many public supply wells are in the path of the Bethpage Grumman-Navy plume while there are no public supply wells in the path of the Calverton plume.

In closing, we strongly support BPWD in their efforts to protect the financial interest of their taxpayers and look to your Department to end the finger pointing between the responsible parties so that the impacted water purveyors can obtain fair and reasonable compensation for needed treatment facilities in an expedient manner.

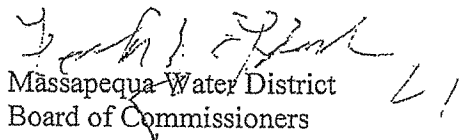
Sincerely,



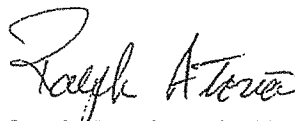
Aqua New York
President



Bethpage Water District
Board of Commissioners



Massapequa Water District
Board of Commissioners



South Farmingdale Water District
Board of Commissioners

Cc: Senator Charles Schumer (Gerry Petrella)

Bethpage Water District
Massapequa Water District
South Farmingdale Water District

June 6, 2012

The Honorable Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

Re: Grumman-Navy Groundwater Contamination Plume
Proposed Remedial Action Plan for OU-3 – May 2012
NYS Superfund Site No. 130003A

Dear Governor Cuomo:

The undersigned water suppliers collectively provide drinking water from a USEPA designated "Sole Source Aquifer" to over 200,000 residents in Nassau County. Our residents have entrusted us with providing a safe and reliable drinking water supply, and, directly by law, that trust has been extended to the New York State Department of Environmental Conservation (NYSDEC). The groundwater plume emanating from OU 3 is part of a massive groundwater contamination plume flowing from the Northrop Grumman/Navy site in Bethpage, New York. This massive plume is impacting or threatening 33 public water supply wells that are collectively operated by the undersigned systems.

We have work diligently to protect the public health and tax dollars of the residents we serve. This includes staying engaged and communicating our concerns to the NYSDEC. Unfortunately, the above referenced Proposed Remedial Action Plan (PRAP) is not responsive to the concerns we have consistently raised to the DEC and repeats the same serious mistakes that have plagued the management of this major plume over the past 25 years. Furthermore, the PRAP is extremely vague and lacks specific information necessary for us to fully understand how our public water supply will be protected.

On October 19, 2011 (*refer to attached letter*), we jointly communicated our concerns and comments to the NYSDEC when the draft Comprehensive Feasibility Study (FS) was issued. The FS serves as a basis for the development of the PRAP. Unfortunately none of our comments have been addressed in the recently issued PRAP.

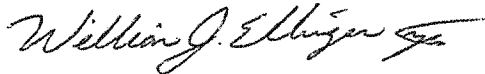
At this time, we strongly request that you intercede on our behalf to stop the NYSDEC from making the same costly mistakes by selecting an inadequate remediation measure that does not properly protect vital public water supply wells from initial or continued contamination. The selected remediation alternative in the PRAP must require

comprehensive groundwater clean-up, necessary wellhead protection and cost recovery. In addition any selected remedy must be predicated on sound science and engineering.

After your review of this matter, we ask that you contact our designated representative, Stan Carey at 516-798-5266, for further discussion. We would appreciate the opportunity to meet with you on this very important matter that affects nearly a quarter of a million Nassau County residents. Thank you for your time and consideration.

Sincerely,

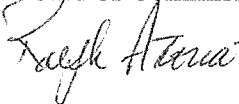
Bethpage Water District
Board of Commissioners



Massapequa Water District
Board of Commissioners



South Farmingdale Water District
Board of Commissioners



Cc: Commissioner Joseph Martens

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**Aqua New York
Bethpage Water District
Massapequa Water District
South Farmingdale Water District**

October 19, 2011

Dale A. Desnoyers, Director
Division of Environmental Remediation
625 Broadway - 12th Floor
Albany, NY 12233-7015

Re: Northrop Grumman-Navy Groundwater Contamination Plume
Technical Roundtable Meeting Held on September 15, 2011

Dear Mr. Desnoyers:

The undersigned four water suppliers thank the DEC for your attendance at the above captioned meeting. Commissioners of the Massapequa Water District together with Commissioner Martens and Deputy Commissioner Leff have worked diligently for this meeting to occur since March 2011. The object of this meeting was for the affected water districts to present alternatives to the DEC PRAP for the contamination source known as OU3. We also appreciate the attendance of Mr. Swartwout and Mr. Harrington from your office and acknowledge the participation of the New York State Department of Health via conference call.

This letter summarizes the items discussed, and we trust it will serve as a basis to develop an effective OU-3 PRAP that can be converted into a ROD thereby providing optimum protection of our vital drinking water supply wells that serve approximately 260,000 residents. As you are aware, these residents together with Senator Charles Schumer, are demanding that the DEC take immediate action to stop the forward migration of the plume to prevent impact of additional water supply wells. Based on our meeting, it is our understanding that the OU-3 PRAP is not intended to be issued for another 60 to 90 days and that gives more time to reconsider alternatives.

As you recall, we reviewed the following specific OU-3 FS Study area concerns:

- a. The FS needs to assess the impact to the supply wells in the path of the comingled plume. Wellhead treatment and associated cost must be considered.
- b. The selection of Alternative 3 is not proper since all viable alternatives have not been evaluated.

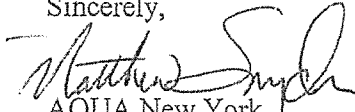
- c. The NYSDEC must support the following Navy Optimization Report conclusions:
- i. The hot spot in the OU-3 Plume contains much higher VOC concentrations than the rest of the off-site plume. This hot spot needs to be effectively contained to reduce future impacts to the down-gradient aquifer. It is our understanding that Trichloroethene (TCE) and cis-1,2-dichloroethene (cis- 1,2-DCE) were determined to be the predominant VOCs detected (based on frequency of detection and concentration) in groundwater above Standards, Criteria, and Guidance values (SCGs), followed by 1,1-dichloroethane (1,1-DCA); tetrachloroethene (PCE); 1,1-dichloroethene (1,1-DCE); vinyl chloride (VC); 1,2-dichloroethane (1,2- DCA); Freon 113; toluene, chloroform, 1,1,1-trichloroethane (1,1,1-TCA); and trans 1,2-dichloroethene (trans-1,2-DCE).*
 - ii. A more technically integrated approach among various stakeholders for managing groundwater impacts in OU-2 and OU-3 would provide many advantages at this site.*
- d. The NYSDEC must consider plume containment of the entire comingled OU-2 and OU-3 plume. A preliminary concept is illustrated on the attached map. Given an average horizontal groundwater flow rate of 1 foot per day, a conceptual hydraulic barrier of 12,000 feet wide by 600 feet deep by 1 foot thick, and an average porosity of 25 to 40%, a preliminary theoretical withdrawal rate of approximately 20 MGD would be needed in the identified zone. This conceptual approach will protect the non-impacted South Farmingdale, Aqua and Massapequa supply wells. We look forward to reviewing the Navy study that is presently underway and our anticipated review of its evaluation and findings related to plume containment.
- e. Grumman and Navy must pay for all wellhead treatment costs for the supply wells that are presently impacted.
- f. The Bethpage Water District (BWD) has immediate needs regarding the impact of this latest contamination, and ongoing contamination of its drinking water supply from the Grumman/Navy plume. Mr. Rich Humann, of H2M, presented a new approach to the alternatives for the most immediate and critical needs at Bethpage Plant 4 site that must be recognized by the DEC. In addition to being innovative, this approach represents a cost savings to the overall cleanup process as it relates to the VOC contamination impacting Plant 4 as well as an identified hot spot in the OU-3 study area. BWD presented a cost effective and environmentally progressive solution for addressing disposal of treated


groundwater through water re-use at the Bethpage golf course that is in close proximity to BWD Plant 4. Since the level of threat by the excessive concentrations of contamination surrounding Plant 4 will result in the long term loss of the plant as a public drinking water facility, that resulting impact necessitates the replacement of lost pumping capacity. The Bethpage Water District has commenced a study for the replacement of Plant 4 that could be achieved by locating supply wells and storage facilities outside of the plume area, northeast of the plume.

In the spirit of working together with the DEC and the Navy/Grumman, once replacement capacity is achieved, the BWD would have a treatment system in place at Plant 4, which would serve to provide partial hotspot cleanup of the OU-3 plume. As Senator Schumer has stated, none of the local water districts should be burdened with any of the cleanup costs. Therefore, Northrop Grumman and/or the Navy must pay BWD for new supply wells and facilities and assume the costs for Plant 4 as a partial remediation facility.

We, the undersigned water suppliers, request that the dialogue between the DEC and water suppliers continue on an immediate time schedule since it is apparent that this plume with all of its fingers, and sources will impact more drinking water supply wells sooner than expected.

Sincerely,


AQUA New York
President

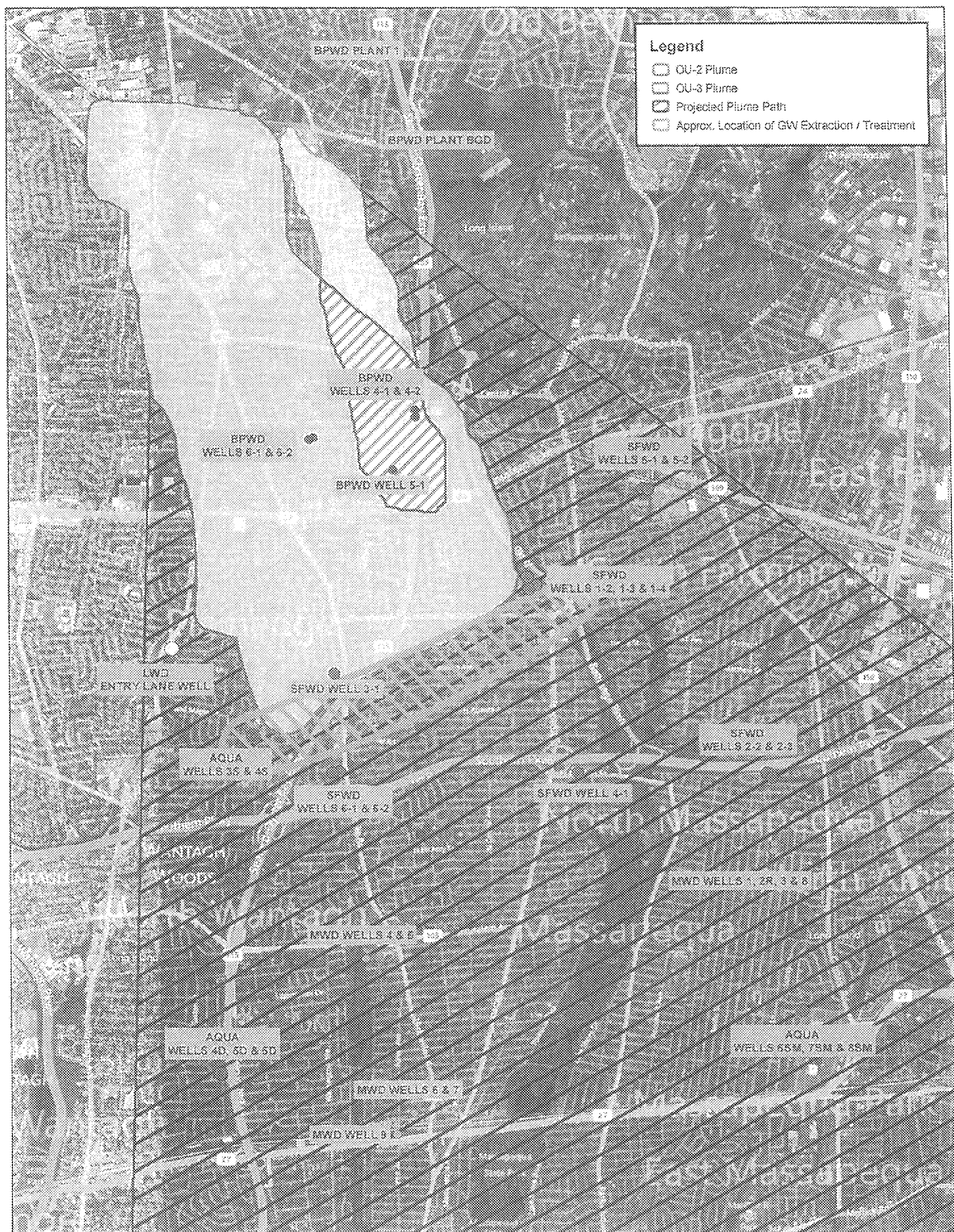

Massapequa Water District
Board of Commissioners

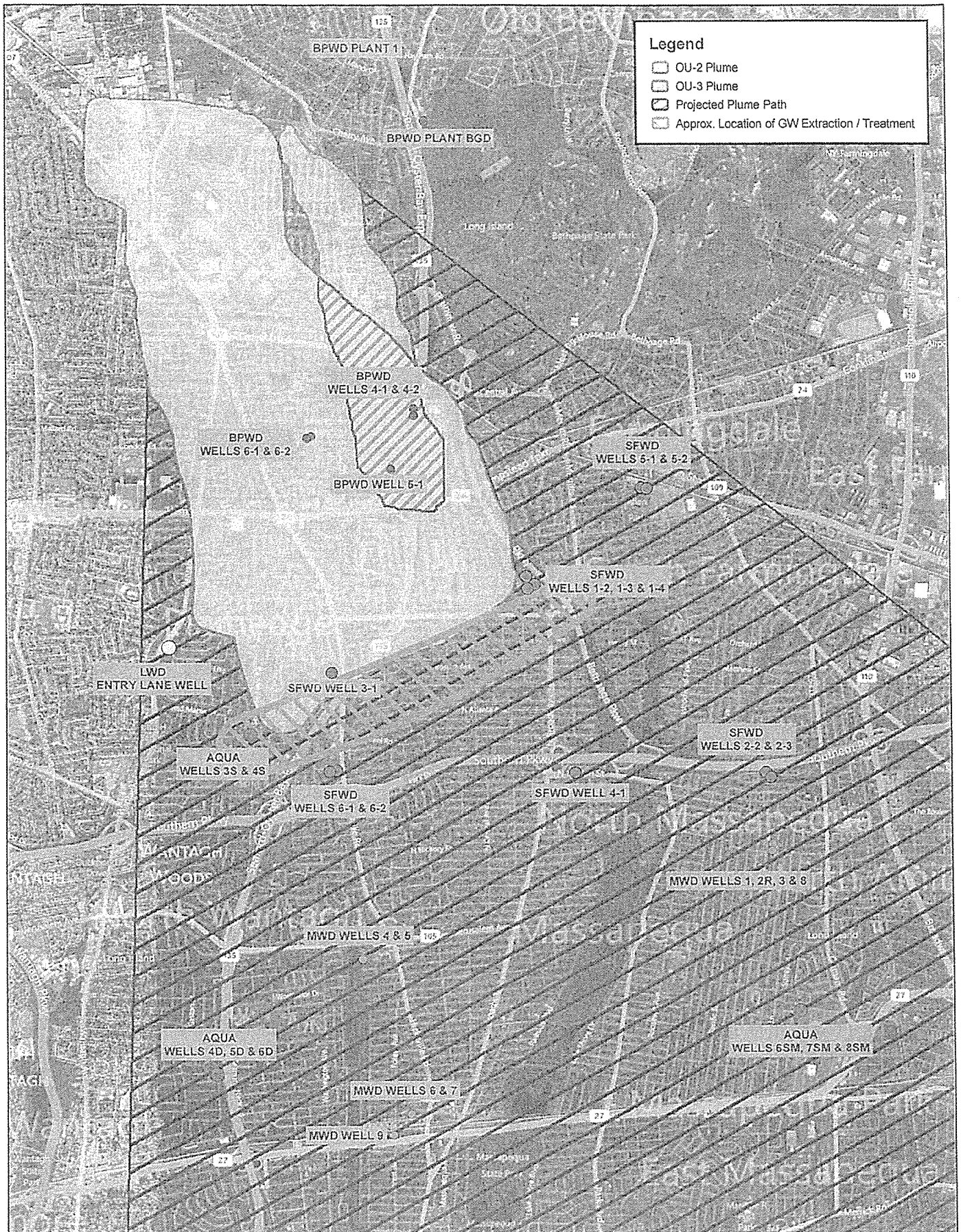

Bethpage Water District
Board of Commissioners


South Farmingdale Water District
Board of Commissioners

cc:

Commissioner Martens -NYSDEC
Deputy Commissioner Leff- NYSDEC
John Swartwout – NYSDEC
Jim Harrington –NYSDEC
Steven Scharf – NYSDEC
Steven Bates – NYSDOH
Barry Tornick – USEPA
Carol Stein - USEPA





Aqua New York
Bethpage Water District
Massapequa Water District
South Farmingdale Water District

May 6, 2011

Commissioner Joseph Martens
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-0001

Re: Grumman-Navy Groundwater Contamination Plume

Dear Commissioner Martens:

We the undersigned water districts are deeply concerned with the decision of your staff to move forward with issuing the OU-3 PRAP and subsequent public hearing without awaiting the reports that are pending from the EPA, and Navy Optimization program. We are confident that you are aware that the USGS and the EPA have already documented the fact that both the data and model upon which your staff is making this decision is critically defective. In fact, the USGS report brings forth numerous factors that have previously been cited by representatives of the undersigned water districts and ignored by your staff. It is apparent that this DEC process is continuing unabated.

We have even pointed out the conflicts that your remediation selection has with the existing New York State laws that govern drinking water and the New York State Department of Health requirements

Perhaps in the past it was in the department's best interests to deal with each water supplier individually while relying upon information supplied by the PRP's in utilizing an inadequate and defective model. You certainly are aware that approach ignored the global problem of aquifer contamination and did not predict that all water supply wells south of the Grumman Bethpage site would be impacted by this toxic plume and eventually, even the Great South Bay.

The undersigned water districts collectively provide potable water to over 200,000 residents from the same Magothy aquifer that has been and still is being contaminated by the Navy Grumman toxic plume. Our residents have entrusted us with providing a safe and reliable drinking water supply and directly by law that trust has been extended to the New York State Department of Environmental Conservation. Your departmental procedures have basically tied our hands in the need for the cleanup and remediation of this plume. This has propagated ineffective and costly cleanup approaches through the utilization of the PRP's defective modeling.

While we have applauded your personal intervention is delaying the process for the OU - 3 project, it is to our great dismay that your Department is still moving forward with holding a public hearing for the OU-3 PRAP with the knowledge that the computer model is defective.


We, therefore, strongly urge you to immediately suspend the process based on the recent elucidation of the model deficiencies documented by federal experts and the acknowledged strong support of U.S. Senator Schumer to have sound science and engineering be used to address the clean-up of this massive contamination

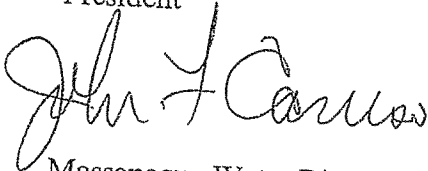
It is also critical that the OU-3 PRAP (a) apply the Soil Cleanup Objectives for the Protection of Groundwater under Part 375-6.5 given that soil contamination is causing groundwater standards to be contravened, and (b) require treatment to restore the groundwater to standards, prevent the migration of the plume, and require wellhead treatment only as a measure of last resort, in accordance with DEC Regulations, Section 375-1.8(d) and 375-1.8(c)(4).

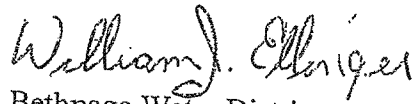
It is well documented that the flawed groundwater model was a major part of the unfortunate and significant failures of the decisions made with OU-2 to date. These failures were also predicated on incomplete data and inability to objectively evaluate the long term impacts. Out of common sense we pose this question: Why would your Department want to make the same mistake with OU-3?

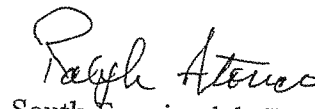
In closing, we urge you to immediately suspend the OU-3 PRAP process. Groundwater clean-up must be comprehensive and predicated on sound science and engineering. Should you have any questions or require additional information please feel free to contact our designated representative, MWD's Commissioner John Caruso at 516-459-7276. Thank you for your time and consideration.

Sincerely,


Aqua New York
President


Massapequa Water District
Board of Commissioners


Bethpage Water District
Board of Commissioners


South Farmingdale Water District
Board of Commissioners

Cc: Deputy Commissioner Eugene J. Leff